

U.S. Patent Application Serial No. 09/926,260
Amendment filed March 7, 2005
Reply to OA dated December 6, 2004

AMENDMENTS TO THE CLAIMS:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

Claim 1-7 (Canceled).

Claim 8 (Currently Amended): A process for producing a polyester resin composition containing a thermoplastic polyester resin and layered phyllosilicate consisting of untreated phyllosilicate comprising:

(A) a step for preparing a dispersion of layered phyllosilicate and water containing layered phyllosilicate and water;

(B) a step for ~~mixing~~ adding said dispersion of layered phyllosilicate and water continuously or successively to a component having low polymerization degree of the thermoplastic polyester resin with said dispersion of layered phyllosilicate and water at a rate of 0.01 to 10.0 parts by weight per minute based on 100 parts by weight of the component having low polymerization degree of the thermoplastic polyester resin; and

(C) a step for polymerizing the thermoplastic polyester resin.

Claim 9 (Canceled).

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Claim 10 (Previously Presented): A polyester resin composition containing a thermoplastic polyester resin and layered phyllosilicate consisting of untreated phyllosilicate, which is prepared by the process of Claim 8, wherein said layered phyllosilicate in said resin composition satisfies at least one of the following conditions (a) to (c):

- (a) ratio of layered phyllosilicate having equivalent area circle diameter (D) of at most 3,000 Å is at least 20 % of the total amount of layered phyllosilicate;
- (b) a mean value of equivalent area circle diameter [D] is at most 5000 Å;
- (c) the number of particles [N] per unit ratio of layered phyllosilicate present in 100 μm^2 of a resin composition is at least 30.

Claim 11 (Previously Presented): The polyester resin composition of Claim 10, wherein the layered phyllosilicate in the resin composition satisfies at least one of the following conditions (d) to (f):

- (d) average aspect ratio (ratio of layer length/layer thickness) is 10 to 300;
- (e) the maximum layer thickness is at most 2,000 Å;
- (f) average layer thickness is at most 500 Å.

Claim 12 (Previously Presented): The polyester resin composition of Claim 11, which satisfies all of said (d) to (f).

Claim 13 (Previously Presented): A polyester resin composition containing a thermoplastic polyester resin and layered phyllosilicate consisting of untreated phyllosilicate, which is prepared by the process of Claim 8, wherein at least one of the following conditions (g) to (i) is satisfied:

- (g) difference ($\eta_e - 3\eta$) between extensional viscosity η_e and a value three times the shear viscosity η at 280°C under shear rate of 100 (1/s) is larger than 300 Pa·s;
- (h) difference $\Delta\eta_e$ between η_e under shear rate of 100 (1/s) and η_e under shear rate of 1,000 (1/s) at 280°C is at least 500 Pa·s;
- (i) product $J_{e0}\eta_e$ of equilibrium compliance J_{e0} by zero shear viscosity η_0 at 280°C is at least 0.8 second.

Claim 14 (Previously Presented): The polyester resin composition containing a thermoplastic polyester resin and layered phyllosilicate of Claims 10, wherein at least one of the following conditions (g) to (i) is satisfied:

- (g) difference ($\eta_e - 3\eta$) between extensional viscosity η_e and a value three times the shear viscosity η at 280°C under shear rate of 100 (1/s) is larger than 300 Pa·s;
- (h) difference $\Delta\eta_e$ between η_e under shear rate of 100 (1/s) and η_e under shear rate of 1,000 (1/s) at 280°C is at least 500 Pa·s;
- (i) product $J_{e0}\eta_0$ of equilibrium compliance J_{e0} by zero shear viscosity η_0 at 280°C is at least 0.8

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Claim 15 (Previously Presented): The polyester resin composition of Claim 14, which satisfies all of said (g) to (i).

Claim 16 (Previously Presented): The polyester resin composition of Claim 10, which contains a fibrous filler and/or a polycarbonate resin.

Claim 17 (Previously Presented): The polyester resin composition of claim 10, said layered phyllosilicate comprises a dispersion comprising layered phyllosilicate consisting of untreated phyllosilicate and water.

Claim 18 (Previously Presented): The polyester resin composition containing a thermoplastic polyester resin and layered phyllosilicate of Claim 11,

wherein at least one of the following conditions (g) to (i) is satisfied:

(g) difference ($\eta_e - 3\eta$) between extensional viscosity η_e and a value three times the shear viscosity η at 280°C under shear rate of 100 (1/s) is larger than 300 Pa·s;

(h) difference $\Delta\eta_e$ between η_e under shear rate of 100 (1/s) and η_e under shear rate of 1,000 (1/s) at

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280°C is at least 500 Pa·s;

(i) product $J_{e0}\eta_0$ of equilibrium compliance J_{e0} by zero shear viscosity η_0 at 280°C is at least 0.8 second.

Claim 19 (Previously Presented): The polyester resin composition containing a thermoplastic polyester resin and layered phyllosilicate of Claim 12, wherein at least one of the following conditions (g) to (i) is satisfied:

(g) difference ($\eta_e - 3\eta$) between extensional viscosity η_e and a value three times the shear viscosity η at 280°C under shear rate of 100 (1/s) is larger than 300 Pa·s;

(h) difference $\Delta\eta_e$ between η_e under shear rate of 100 (1/s) and η_e under shear rate of 1,000 (1/s) at 280°C is at least 500 Pa·s;

(i) product $J_{e0}\eta_0$ of equilibrium compliance J_{e0} by zero shear viscosity η_0 at 280°C is at least 0.8 second.

Claim 20 (Previously Presented): The polyester resin composition of Claim 11, which contains a fibrous filler and/or a polycarbonate resin.

Claim 21 (Previously Presented): The polyester resin composition of Claim 12, which contains

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a fibrous filler and/or a polycarbonate resin.